

## CHAPTER 12

### MAINTENANCE MANAGEMENT

12-1. General. Each DoD Component shall develop and implement a maintenance management program to ensure that assigned motor vehicles are maintained in a safe and serviceable condition.

12-2. Maintenance Policy. Implementation of this management program must include performing, at a minimum, the following four basic types of maintenance:

a. Operator Inspection and Service. Operator inspection and service consists of the inspection and identification of malfunctions that render the motor vehicle unsafe and/or unserviceable. In addition, operator service may include minor parts replacement (wiper blades, fuses, light bulbs, valve caps, etc.) and servicing (water, fuel, tires, and battery), as specified by the DoD Component. When servicing is specified to be performed by other designated personnel, operators are responsible for ensuring that services are performed, and that the vehicle is in a safe and serviceable operating condition before, during, and after operation. In addition, the operator shall be responsible for reporting in writing any noted deficiencies to designated personnel responsible for taking necessary corrective action.

b. Scheduled Inspection and Services. DoD motor vehicles must be periodically inspected by qualified automotive inspection personnel for safety and serviceability as follows:

(1) Safety. Each motor vehicle must be inspected for safety at intervals not to exceed 12 months, except that safety inspections shall comply with State and local inspection intervals. Normally, to avoid unnecessary downtime, the safety inspection shall be performed at the time of the scheduled mechanical serviceability inspection, in accordance with manufacturer's recommendations. Where the time intervals of these inspections do not reasonably coincide, the prescribed intervals for the safety inspection shall be followed. Deficiencies that impair safety of operations shall be corrected before returning the vehicle to an operational status.

(2) Serviceability. The engine of a DoD motor vehicle shall be tuned at intervals specified by the manufacturer or as otherwise determined by the DoD Component. These should be specified in writing for all classes or types of motor vehicles in the fleet, particularly for those vehicles excluded from the manufacturer's recommended intervals. Such intervals should be stated in any Component-level documents implementing this Regulation. Corrective adjustments and repair action taken as the result of serviceability inspections shall be generally limited to only those items prescribed by the manufacturer, and only to the extent necessary to restore the vehicle to optimum serviceability and safety, consistent with achieving maximum cost-effectiveness.

c. Emissions Inspections and Maintenance

(1) Under the Clean Air Act, 42 U.S.C. 1857 et. seq., (reference (vv)) as amended, the Department of Defense must comply with State and local programs to improve air quality. All DoD Components shall conform with the State

and local standards to monitor and analyze emissions from nontactical motor vehicles and shall use State and local guidelines in conducting such analyses.

(2) 42 U.S.C. 7522 (reference (ww)) also prohibits DoD personnel or contractors from removing or rendering inoperative any emissions control device or element of design. The civil penalty for violation of this provision is \$2,500 per vehicle. Violations of the fuels regulations can result in penalties of up to \$10,000 per violation. When performing corrective adjustments and repair actions or tune-ups, engine settings shall not be accomplished outside the manufacturer's recommended specifications, nor shall pollution control equipment (i.e., the catalytic converter, exhaust gas valve, or heated air intake system) be removed or rendered inoperative.

(3) An exception to the policy is made for removal of the catalytic converter to prevent vehicle damage outside the continental United States where only leaded gasoline is available. Outside the continental United States, compliance with host-nation emission control laws shall be governed by terms of the Status of Forces Agreement, stationing agreement, or any other agreement between the United States and the country concerned.

d. Unscheduled Maintenance Service. The purpose of maintenance is to correct deficiencies that occur between scheduled inspections and services. Unscheduled maintenance shall be generally limited to the correction of specific items reported as deficient and confirmed by the diagnosis of qualified inspection personnel. Other deficiencies observed at the time of an unscheduled service, particularly those affecting safety, shall be corrected.

e. Preventive Maintenance. In accordance with Section 10 Executive Order 12759 (reference (kk)) and its implementing Federal Property Management Regulations (FPMR) Temporary Regulation G-56 (reference (ll)), in conjunction with implementing the etive preventive maintenance schedule described in subparagraph 12-2.b., above, special attention will be given to the following steps to ensure vehicles are maintained in a fuel efficient manner:

(1) Maintain clean fuel and air filters.

(2) Maintain clean fuel injection system.

(3) Use of a multi-grade, energy conserving engine oil of the lowest viscosity recommended by the vehicle manufacturer and based on the lowest temperature for the period the oil is in the engine.

(4) Maintain wheel alignment to vehicle manufacturer's specifications.

(5) Maintain the maximum tire pressure recommended by the manufacturer.

### 12-3. Methods for Accomplishing Maintenance

a. The following alternative methods or combination of methods of accomplishing maintenance actions may be used:

(1) Organic facilities (to include in-house contract maintenance).

(2) Other government facilities.

(3) Commercial facilities.

b. Regardless of the method selected for maintenance, the inspection shall be performed by qualified automotive inspector personnel assigned to the installation or activity. In cases of host-tenant occupancy of an activity, maintenance support shall be performed by the host component consistent with its own maintenance practices, unless otherwise specified in support agreements.

12-4. The Use of Maintenance Performance Standards. The DoD components shall establish and use performance standards to evaluate the performance of activities that maintain vehicles. These may be any or all of the following depending upon the Component's needs:

a. Comparison of vehicle out of service time (downtime) to an established standard.

b. Comparison of cost per mile, hour, or unit to the Component's average.

c. Comparison of actual man-hours per 1,000 miles (operating hour or unit) to an established standard for a group of like vehicles.

d. Comparison of shop performance productivity using actual productive hours compared to available hours for a given time period.

e. Comparison of direct labor hours to indirect labor hours; i.e., productive supervisory and overhead hours.

f. Comparison of individual performance against a flat rate or other established time standard.

12-5. One-Time-Repair Limits. Components shall set forth instructions on the calculation and use of a repair limit.

12-6. Warranty Provisions

a. The DoD Components shall ensure that all managers of motor vehicles familiarize themselves with the general provisions of the vehicle warranty and of the significance of such provisions in reducing maintenance costs. All personnel connected with the acceptance, operation, and maintenance of motor vehicles in administrative use shall make maximum use of the manufacturer's warranty during the warranty period.

b. Warranty Correction Procedures. When it is determined that a deficiency exists on a motor vehicle, activities located in the 50 States and the District of Columbia shall attempt to obtain corrective action by the local franchised dealer. Activities shall not take action to correct deficiencies and expect to be reimbursed by the contractor, unless such corrective action has been authorized in writing by either the contractor or the contract administration

officer. Warranty problems that are not resolved by the local franchised dealer shall be handled in accordance with procedures prescribed by the DoD Component concerned. Installations outside the 50 States and the District of Columbia, where warranty provisions cover only the replacement by the manufacturer of defective parts, shall, when economical to do so, return such parts to the manufacturer in accordance with procedures prescribed by the DoD Component concerned. Correction of warranted deficiencies on foreign vehicles, procured for use by U.S. Forces outside CONUS, will be prescribed by the overseas manufacturer's warranty.

c. In-House Service Warranties. As an option to having the local franchised dealer perform warranty corrective action, the DoD Components may choose to negotiate an in-house warranty with the local dealer. This arrangement would permit the maintenance manager to choose either the local dealer or installation maintenance to perform a particular warranty repair without violating the warranty or incurring costs. The provisions that delineate the details of the in-house warranty including billing information should be specified in the contract between the Government and the local dealer.

#### 12-7. Other Defects

a. The contractor's responsibility for defective material or workmanship is not necessarily limited to the specified number of miles or years stated in the warranty. Abnormal malfunctions or an unusually high incidence of parts failures detected at some point beyond the warranty period, which can be attributed to latent defects and not normal wear and tear, shall be reported to the DoD Component concerned, together with a full description of the problem and accompanying data.

b. Abnormal wear or material failures, malfunctioning of equipment, poor design, or other unsatisfactory conditions, not otherwise covered by warranty or latent defect procedures, shall be reported to the DoD Component concerned. Reports shall completely document the condition and provide, where a solution is known, specific recommendations for corrections, such as improvement in design, ease of maintenance, safety and efficiency of operation, suitability of fuel, lubricants, and preservatives.

c. In recent years, manufacturers have recalled motor vehicles of various makes and models for inspection, repair, or replacement of components suspected to be unsafe because of latent manufacturing or design defects. In many instances, such recalls have been delayed beyond reasonable periods of time due to the lack of formalized, positive, and timely reporting of vehicle location. The DoT, National Highway Traffic Safety Administration, has been given the responsibility to ensure that prompt notifications of suspected safety defects are issued, and that manufacturers take timely actions as required by the National Traffic Motor Vehicle Safety Act of 1966, 15 U.S.C. 1381 - 1431 (reference (xx)). The Department of Defense has agreed to participate in this important matter as follows:

(1) Each DoD Component shall require expeditious reporting of safety defects found in nontactical DoD motor vehicles. Such defects shall be fully documented and conspicuously annotated with the phrase, "DEFECT WHICH MAY AFFECT SAFETY."

(2) Each DoD Component shall establish procedures and publish instructions for reporting vehicle defects in accordance with this paragraph. Such instructions should include a provision for furnishing copies of such defect reports to any activity (such as GSA), responsible for purchasing the defective vehicle.

(3) Each DoD Component shall establish procedures for dissemination of manufacturer-announced defects and for reporting of corrections.

#### 12-8. Motor Vehicle Modifications

a. Normally, modification of DoD motor vehicles shall not be performed. The DoD Components shall establish adequate control to ensure that all vehicle modifications are limited to those required for safety, security, or accomplishment of the military mission. Limited modification for such purposes as providing wrecker service or two-way radio service, and for installation of emergency warning devices or auxiliary fire fighting equipment, may be accomplished, but only after due consideration of the cost-effectiveness of the action.

b. In accordance with Section 303 of the Energy Policy Act of 1992 (reference (r)) and its implementing Section 2 of Executive Order 12844 (reference (s)), DoD-owned sedans, station wagons and light duty trucks (under 8,500 pounds GVWR) may be converted to use alternative fuels, including natural gas, liquefied petroleum gas, alcohols and electricity, to meet the alternative fueled vehicle (AFV) acquisition goals of E.O. 12844, if such vehicles are not available from original automotive equipment manufacturers and, after conversion, the OEM's warranty continues to apply to such vehicles, pursuant to an agreement between OEM and the person performing the conversion. All converted vehicles shall comply with all applicable Federal and State emissions and safety standards, consistent with those requirements placed on original automotive equipment, including years and mileage.

12-9. Privately-Owned Vehicles (Restrictions). Privately-owned vehicles, vehicle units, parts, accessories, and equipment shall not be repaired, serviced, or manufactured in any government shop, garage, or other building. Government-owned vehicles, tools, modernized equipment, or supplies shall not be used to service or repair such private property, except when life threatening or emergency conditions occur calling for humanitarian response. Privately-owned vehicles shall not be parked, garaged, or stored in any government motor pool, shop, or in any building where government property is stored. The above restrictions do not apply to authorized hobby shops.

12-10. Replacement Criteria. All DoD components shall use a standard series of commercial motor vehicle replacement criteria as provided in this Regulation. These criteria, presently based on age and accumulated mileage variables, shall be used to determine component vehicle replacement requirements and to calculate the repair limit established in section 12-5, above. Whether age, mileage, or both criteria are used, vehicle replacement eligibility is to be determined by

the Service Component. The replacement criteria table shall be reviewed biannually in a joint-service meeting chaired by Deputy Under Secretary of Defense, (Logistics), and Component data will be used to amend the replacement criteria table as necessary. The replacement criteria are found in Table 2, "Motor Vehicle Life Expectancy; Years and Miles."

12-11. Management Indicators. The following management indicators (for motor vehicles reported on the SF 82, "Agency Report of Motor Vehicle Data," (Figure 13-1)) shall be informally presented and discussed annually by the Standing Committee on DoD Vehicle Management.

(Components shall only report the management indicators for which they have data. These management indicators, however, shall be included in any new data information system being implemented.)

a. Total operations and maintenance costs for the last fiscal year as reported on the SF 82. Cost will be presented in the following format:

- (1) Fuel cost.
- (2) Direct labor cost.
- (3) Direct parts cost.
- (4) Total indirect cost.
- (5) Total operations and maintenance cost.

b. Cost Per Mile (C/P/M). The C/P/M shall be presented by vehicle groups and total fleet as reported on the SF 82.

c. Labor Hours. If available, labor hours will be presented as follows:

- (1) Total hours available.
- (2) Direct (actual) hours expended.
- (3) Indirect hours expended.
- (4) Flat rate or other established time standard hours.
- (5) Direct labor hours per 1,000 miles of operation.

d. Fleet Miles Operated. Miles will be presented as follows:

- (1) Total miles operated by fleet.
- (2) Fleet average miles per vehicle .
- (3) Average miles by vehicle group as reported on SF 82.

e. Miles per Gallon (MPG). Will be presented reflecting fleet average and vehicle group average as reported on the SF 82.

f. Vehicle Out-of-Commission (VOC) Rates. VOC will be presented as follows:

- (1) Percent VOC for maintenance.
- (2) Percent VOC for parts.
- (3) Percent VOC awaiting maintenance.
- (4) Total VOC percent.

12-12. Management Review. Managers at all levels shall assume the responsibility for using maintenance and operations data to measure the effectiveness of motor vehicle activities under their control. Components shall develop and publish minimum essential management indicators that support their mission and help to identify fraud, waste, and abuse. These missions require the use of different maintenance concepts and a different mix of civilian, military, and contract mechanics. Management review shall include, as a minimum, labor productivity, out-of-commission rates, cost per mile, and preventive maintenance. Although vehicle utilization is not a normal maintenance responsibility, it should be reviewed because it affects management indicators when comparing maintenance activities against each other.

12-13. Repeat Maintenance. Components shall prescribe in their publications that local maintenance managers are responsible to identify and initiate corrective action for repeat maintenance. Major causes of repeat maintenance are poor quality control, parts that do not meet manufacturer's specifications, lack of training for mechanics, driver abuse, poor test equipment, and poor shop facilities.

12-14. Management Information System (MIS). The Component's MIS shall provide data on the management indicators prescribed by this Regulation. The degree of information provided shall be adequate to support analysis on maintenance efficiency and productivity at all levels of management. The MIS can be a manual or automated system.

TABLE 2

Motor Vehicle Life Expectancy Years and Miles \*

<u>Description</u>	<u>Years</u>	<u>Miles</u>
AMBULANCE, ALL	8	60,000
Sedan, All	6	60,000
Station Wagon	6	60,000
Bus, Body on Chassis (BOC) (up to 37 passengers)	8	80,000
Bus, Body on Chassis (BOC) (over 37 passengers)	10	150,000
Bus, Integral	12	300,000
Truck 1/4 and 3/4 ton (under 7,000)	6	54,000
Truck and Truck Tractor 1 and 2 ton (7,000 thru 18,999 GVW**)	7	84,000
Truck and Truck Tractor 2-1/2 thru 4 ton (19,000 thru 23,999 GVW**)	8	80,000
Truck and Truck Tractor 5 thru 10 ton (24,000 thru 39,999 GVW**)	10	150,000
Truck and Truck Tractor 11 ton and over (40,000 GVW** and up)	12	300,000
Trailers and Semitrailers	15	--
Motorcycle	3	15,000
Scooter 3-Wheel - Package Deal	3	7,200

\* Years or miles indicated, whichever occurs first.

\*\* GVW - Gross Vehicle Weight

(The DoD Components may require that nontactical vehicles meet or exceed both the age and mileage criteria before becoming replacement eligible.)